

CLAIMS

1. A system for remotely managing the maintenance of a set of facilities by a maintenance company and a facility management company, which system comprises:

5 local monitoring units, installed in close proximity to the facilities and each comprising means for carrying out measurements on the operation of the facilities and thus for detecting malfunctions,

a computer made available to the maintenance company, which computer is connected to the local units through a transmission network for receiving and
10 processing information relating to the malfunctions detected by the local units,

a computer made available to the facility management company, which receives from the local units the same information as the computer of the maintenance company,

each local unit being associated with at least one facility and further
15 comprising control means allowing a maintenance engineer to notify the start and the end of his inspection of the associated facility, these events being transmitted to the computers of the maintenance and managing companies, said computers comprising means for storing all information transmitted by the local units.

20 2. A system according to claim 1, wherein each local unit comprises means for preventing the computers from sending information relating to malfunctions and failures detected between the beginning and the end of an inspection carried out by a maintenance engineer, and signaled using said control means.

25 3. A system according to claim 1, wherein each computer is connected to a data base collecting all information relating to the facilities and their maintenance, and the information transmitted by local units.

30 4. A system according to claim 1, wherein the computers of the maintenance company and the company managing the monitored facilities comprise:

means for counting the number of maintenance inspections carried out for each monitored facility during a predetermined period of time, for comparing
35 this number to a first predetermined threshold, and for transmitting a first maintenance fault signal if the number of inspections does not reach this threshold at the end of said predetermined period of time,

means for computing the total duration of the maintenance operations

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performed on each monitored facility during said predetermined period of time, for comparing this total duration to a second predetermined threshold, and for sending a second maintenance fault signal if this total duration is not at least equal to a second threshold at the end of said predetermined period of time,

5 means for comparing the response time of a maintenance engineer for a facility detected as malfunctioning with a third predetermined threshold, and for sending a third maintenance fault signal when this threshold is exceeded, and

means for comparing the time to restart of a facility after a facility malfunction or repair operation with a fourth predetermined threshold, and for

10 sending a fourth maintenance fault signal when this threshold is exceeded.

5. A system according to claim 4, wherein the computer of the company managing the monitored facilities comprises means for computing penalties to be applied to the maintenance company after sending a maintenance fault signal as a
15 function of the latter.

6. A system according to claim 4, wherein the first and second predetermined thresholds are set as a function of the monitored facilities, and that the third and fourth predetermined thresholds are defined as a function of the
20 detected malfunction or the type of repair, these thresholds being as defined by the maintenance contract binding the maintenance company to the managing company.

7. A system according to claim 1, wherein transmissions between the
25 local units and the computers of the maintenance and managing companies are carried out through a basic wire or radio telephone network, wherein the local units further comprise means for setting-up a link between the local units and the computers through a radio telephone network, when the local units cannot access the basic telephone network.

8. A system according to claim 7, wherein at least one local unit on each site comprises a data transmission unit, wherein this transmission unit comprises
30 means for transmission over the basic network and means for transmission over the radio telephone network, the other local units of the site comprising means
35 for connection to said data transmission unit.

9. A system according to claim 8, wherein the radio telephone network transmission means in the data transmission unit are provided with a specific

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backed-up power supply for sending a power supply fault message when the local unit is no longer powered.

10. A system according to claim 1, wherein each local unit comprises
5 means for detecting faults pertaining to its operation and for sending malfunction information if such faults are detected to a computer made available to a maintenance operator.

11. A system according to claim 1, wherein each local unit comprises:
10 means for starting a first timer after a malfunction has been detected on the associated facility,
means for starting a second timer if the first timer has timed out without the corresponding fault having disappeared,
means for sending a malfunction message to the computers of the
15 maintenance and management companies if the second timer has timed out without the corresponding fault having disappeared,
means for starting a third timer after a fault has disappeared, and
means for transmitting a fault disappearance message if the third timer has timed out without the corresponding fault reoccurring.

20 12. A system according to claim 11, wherein the respective duration of the first, second and third timers are determined independently from each other as a function of each malfunction type.